PART 5

PHASE I

PROPOSAL REQUIREMENTS

WASHINGTON STATE FERRIES

NEW 130 – AUTO FERRIES
DESIGN AND BUILD CONTRACT

PHASE I PROPOSAL REQUIREMENTS

The following is a description of the Phase I proposal requirements under the modified RFP for the New 130-Auto Ferries Design and Build Contract.

1. PHASE I PROPOSAL PREPARATION

The proposal information shall be presented in the same format shown in the below "Phase I Proposal Content" Section.

The proposer must submit one (1) original and eight (8) copies of all initial and final proposal documents.

Proposals should be presented in loose-leaf, three ring binders, in a neat, orderly and comprehensive manner. The text is to be typewritten on 8.5" x 11", single sided, paper, with no less than 1.25 line spacing, no smaller than 12 pitch and not more than 60 pages. Foldouts must not exceed 11" x 17". Elaborate brochures or other presentations beyond that sufficient to present a complete and effective proposal are not desired. Elaborate artwork, expensive paper and bindings, and expensive visual or other presentation aids are not necessary.

The proposal categories shall be clearly identified by tabs or separate binders in the same order shown.

2. PHASE I PROPOSAL CONTENT

This Section specifies the requirements for the content of the Phase I proposals. The titles of sub-sections A through E match the Evaluation Factors specified in Part 6, Phase I Proposal Evaluation, herein.

Proposers are encouraged to provide any other information concerning their capability to design and construct vessels that may enhance or clarify the information requested in this Section.

A. SHIPYARD FACILITIES

Proposers must describe a facility or collection of resources capable of performing the requirements of the Construction Contract shown in RFP Volume III, Phase III Contract Provisions, in a timely and cost-effective manner.

1. Provide a layout of facilities showing the location of all management and administrative buildings, shops, lay down areas, warehouses and other storage areas, piers, floating drydocks, graving docks, synchro-lifts, building ways, parking areas, etc. Describe in detail a plan to upgrade existing facilities or obtain from elsewhere any facilities required for the Contract work.

2. Describe facilities to be used to integrate modules and launch vessels such as floating drydocks, graving docks, synchro-lifts, building ways, etc. Provide dimensions, capacities, etc. If drydocks are to be used for assembling and launching vessels, describe how a final pre-trials drydocking for inspections and underwater body painting will be scheduled for each of the vessels.

3. Describe all major shops and list their significant equipment. Indicate any major shop type work which will be accomplished off-site or subcontracted and provide detailed information of those facilities and their arrangements.

4. Describe all cranes and other weight handling equipment including capacity certifications where required.

5. Describe lay down areas and other areas for module assembly and pre-outfitting. Include dimensions and surface configuration.

6. Describe outfitting piers with dimensions and depth of water. Include crane capacity and describe outreach for serving extreme outboard areas of vessels.

7. Describe warehousing facilities, dimensions, storage capacity and material storage facilities. Describe Owner Furnished Equipment (OFE) storage facilities space, environmental controls and material handling capabilities. If off-site facilities are to be used, provide location and description.

8. Provide a description with capacities and location within the work site(s) of the following utilities as a minimum:

   - Electricity;
   - Fresh water;
   - Compressed air;
   - Industrial gases; and
   - Fire main.

9. Describe existing testing facilities and laboratories and identify subcontractor resources that may be utilized to meet the requirements of the Phase III Construction Contract.

10. Describe the existing medical facilities, including staffing, and identify procedures for obtaining additional services and equipment from outside sources.

11. Describe how Contract requirements for on-site WSF facilities listed in RFP Volume III, Contract Provisions, will be provided.

B. DESIGN CAPABILITY

Proposers must show they have the ability to develop a complete vessel design including drawings and specifications in Phase II for vessels of the size and complexity of the new ferries based on the RFP including the Outline Specifications. In addition, proposers must exhibit a capability to perform the detailed design in Phase III involved with the construction of United States registry passenger vessels.

1. If it is intended that the design work be done by the proposer's own design staff, provide the following:

   a. A design department organization chart that identifies the design manager and all supervisors that will be utilized for this

project. Resumes for all such personnel and other key personnel must be submitted. Include any specific experience designing vessels to meet all regulatory requirements imposed on U.S. registry passenger vessels. Indicate how long those personnel have been employed in their present positions.

b. Provide a narrative response describing experience in providing design services of the type, quantity and quality to design and construct a vessel of the proposed type and size.

c. Provide information on the availability of engineers and designers to perform the required design work.

2. If a design subcontractor will be used to perform the design work or a portion of the design work, provide the same information as above for the design subcontractor personnel.

3. If a design subcontractor will be used, provide the portion of work to be performed by the design subcontractor and the interface with the proposer's in-house technical managers.

C. BUILD STRATEGY

Provide a build strategy that presents the proposer's approach to construction of the vessels and which contains all of the information the proposer considers necessary in order to enable WSF to understand and evaluate the proposer's plan for building the vessels. Subsequent to evaluation of the submitted build strategy, WSF may request clarification and/or additional information.

The build strategy should discuss all aspects of the construction process to present a coherent description of the proposer's approach to meet the Contract requirements. Therefore, the build strategy must describe the method of construction from design work through keel laying to completion of outfitting, launching, testing, drydocking, delivery and warranty issuance, and provide a description of the assets and procedures the proposer will use.

The build strategy must also demonstrate and verify that the ferries will be constructed in the state of Washington in accordance with the requirements of the project-enabling legislation (RCW 47.60.812 through 47.60.822).

The following information is to be included, as a minimum, in the submission of the build strategy.

1. Approach to Construction

a. Present in narrative form the overall plan for vessel construction describing concepts, methods, sequence of the various evolutions involved and any unique features of the proposer's approach to construction.

b. Provide a description of the plan to integrate any portion or section of the vessel constructed in a separate geographical location from others. Include a transportation plan, a risk assessment and a mitigation procedure for this process.

c. Provide a major milestone Master Construction Schedule (MCS) which shows significant key events, and major controlling activities, including, but not limited to, the following for each vessel (sequence may be changed and milestones added or modified to conform to proposer's build strategy):

- Completion of approved detailed working drawings (first vessel only);
- Start of construction (cutting steel);
- Keel laying;
- Start block outfitting;
- Hull completion;
- Complete installation of main propulsion equipment;
- Superstructure complete;
- Launching;
- Testing;
- Propulsion system light off;
- Drydocking;
- Dock trials;
- Sea trials;
- Delivery of the vessel to WSF; and
- Delivery of as-built drawings and other technical documentation (technical manuals, parts lists, warranty period, etc.).

A plan for correlating these milestones with the production plan must be described. Proposers must present an achievable MCS which considers controlling activities, key events, their

order and interdependency, and the mutual exclusiveness of certain activities.

d. Describe unique design or construction arrangements to be employed in the New 130-Auto Ferries project not covered in any other data.

Proposers must convince WSF that this project has been well thought out, will be well organized and managed in an effective manner with proper concern for the safety of all concerned and due respect for the environment.

In addition, proposers must demonstrate to WSF that: (i) a thorough effort has been made to identify potential problems associated with the build strategy, the method of vessel construction and management of the project; and (ii) specific, describable solutions have been found which are presented in the build strategy.

2. <u>Technical Plan</u>

Proposers must exhibit a capability to perform and meet the requirement of the Outline Specification for both the Contract level design necessary to prepare and gain approval for Phase II Technical Proposals and the detailed design required in Phase III involved with the construction of United States registry passenger vessels.

a. The Contract work under the Construction Contract in Phase III will require the proposer to develop detailed drawings as described in the Contract documents. Provide a detailed narrative explaining how this will be accomplished.

b. In the event the detailed design is to be done by a combination of organizations such as more than one design element of the proposer's staff and/or subcontractors, provide the following:

i. Design organizations involved (proposer and subcontractors). Describe what portion will be performed by the design agent and the interface between the proposer’s technical managers and the design agent. Include an organization chart showing this interface. Provide a discussion of how the proposer will ensure quality and adherence to Technical Proposal requirements by the design agent.

ii. Central design coordination to ensure proper interfaces of systems between modules to preclude interferences.

iii. Specific task allocation by organization.

iv. Integrated design schedule for modules.

v. Method of achieving drawing standardization to preclude confusion in production execution of the drawings.

vi. Standards agreed upon between all design agents for materials and procedures.

c. If a modular construction method is to be used, explain the design process used for identification of module boundaries. Describe in detail how major systems such as ventilation ducting, fire main, steam, gray water and sewage piping will be designed across module boundaries. Address the iterative process for assuring major systems are logically designed in individual modules and potential interferences are avoided.

d. Provide a detailed narrative describing the process for integrating modules. Include a plan for technical analysis of structures affected and procedures utilized for assembling each module to, or loading each module on, the progressing structure.

3. <u>Production Plan</u>

a. Provide a written narrative which describes the production methodology and sequence. Include location(s) of where the production work is to take place.

b. Describe the sequence of construction and erection of decks, bulkheads and other major hull components. In addition, provide sequence of installation of major machinery such as main engines, reduction gears, shafts, propellers, consoles, switchboards, fire pumps, air compressors, HVAC equipment, etc.

c. Describe the outfitting plan and process. If it is intended to construct the vessels using modular construction, zone outfitting, group technology or a combination of any of these, provide the following:

i. Identify the modules and facilities for construction and outfitting.

ii. Discuss capabilities of respective facilities to construct and outfit modules.

iii. Pre-outfitting to be accomplished by module (systems, trades, percentage).

iv. Organization(s) to accomplish outfitting of modules or portions of the vessels.

v. Subcontractors to be used by system or discipline.

vi. Method to achieve standardization of material and installation between modules if different proposer organizations or subcontractors are used on the different modules or portions of the vessels.

vii. Describe in detail integration of the modules including the following:

- Location and capability of the integration facility;
- Method and capability for moving modules to integration area;
- Sequence and method of integration; and
- Responsibility by module for integration.

viii. Discuss how final outfitting, including final paint out, deck coverings, furniture installation, etc., will be done so as to achieve uniformity in appearance and in quality.

ix. Provide a schedule for completion of construction of modules, pre-outfitting completion (for specified degree of pre-outfitting), testing of module components, integration of modules and system testing after integration.

x. Provide a brief description of the shipyard's system for production scheduling and tracking work progress for both the design and the construction of the vessels.

d. Describe the test organization, and in narrative form, discuss the proposer's plan for all testing (component and system) and trials. Include identification of responsibility for all test coordination and reporting.

e. Identify which portions of ship construction and outfitting will be performed by subcontractors.

f. Discuss the program to assure uniformity of work performed by subcontractors within the individual vessel and among the class of vessels.

g. If the subject vessel, or any portion of the vessel is required to be towed, or if any portion of the vessel is to be transported on a towed vehicle during execution of the Contract, describe in detail the procedure, equipment and subcontractor (if any) to be used. Include plan for survey of the vessel or portion thereof to be towed, fire fighting and damage control plan during tow, risk assessment and heavy weather contingency plan.

4. <u>Material Procurement Plan</u>

a. Discuss the material procurement plan and program to assure standardization of equipment and materials, both within the individual vessel and among the class of vessels.

b. If material procurement is to be accomplished by more than one organization or by more than one element in an organization, describe in detail how standardization of materials will be accomplished within this structure.

c. Provide material ordering schedule and expected dates of arrival of major equipment as compared to need dates shown in the construction schedule.

d. Identify long lead-time material, impact on schedule and work around plans if required.

5. Ability to Meet Vessel Delivery Dates

a. Affirm that the proposer has sufficient management, technical, production, material, financial and quality control capabilities on hand or available to meet the specified Delivery Dates for each vessel (see RFP Volume 1 A, Introduction) and to accommodate all other Contract work.

b. Provide any additional information the proposer believes will assist WSF in evaluation of its ability to meet the vessel Delivery Dates.

c. Provide any proposed earlier vessel Delivery Dates, if deemed necessary or otherwise conducive to the proposer's operations. Note: WSF shall have the sole discretion to approve any earlier vessel Delivery Dates. Influencing factors may include, but are not limited to, WSF cash flow, the RFP Schedule, OFE Schedule, etc.

D. EXPERIENCE AND PAST PERFORMANCE

1. <u>Vessel Design Experience and Past Performance</u>

Provide information on experience and past performance in designing vessels of the approximate size and complexity of the new vessels. (If a design subcontractor is to be used for this RFP, provide the information for the design subcontractor). For each such project, submit the following:

- Owner and type of vessel (ferry, cargo ship, passenger ship, etc.);
- Size of vessel (length, beam, displacement, etc.);
- Year(s) during which vessel was designed; and
- Peak number of people who worked on the design.

2. <u>Vessel Design Performance</u>

Provide discussion on success of project (meeting cost estimates, completion dates, history and resolution of disputes, claims and litigation, etc.).

3. Vessel Construction Experience and Past Performance

Provide information on experience and past performance in constructing vessels of the approximate size and complexity of the new vessels. For each such project, submit the following:

- Owner and type of vessel (ferry, cargo ship, passenger ship, etc.);
- Size of vessel (length, beam, displacement, etc.);
- Year(s) during which vessel was constructed; and
- Peak number of people who worked on the construction.

4. Vessel Construction Performance

Provide discussion on success of project (meeting cost estimates, completion dates, history and resolution of disputes, claims and litigation, etc.).

E. ORGANIZATION, SYSTEMS AND PROCEDURES

1. Shipyard Organization

a. Describe the organization that will be used to manage the Contract work in Phase III including relationships between key elements, lines of authority and delineation of tasks and responsibilities. Identify all significant managers and supervisors (down to department heads and superintendents).

b. Identify all significant managers and supervisors and their roles and responsibilities. Provide resumes of all those identified.

c. If a key position is vacant at present, or will be newly created for this project, provide a copy of the position description and minimum experience and education qualifications that will fill the position.

d. Discuss interface between major components of the organization and their lines of authority.

e. Discuss how priorities will be set for this project in relation to other work in the organization's components.

2. Management and Control Systems

Identify existing management information and control systems, and state where the responsibility for these systems resides.

a. Identify the specific objective of each system (e.g., master scheduling, production progressing, material ordering, receipt and control, etc.). Include the frequency of revision, distribution and how security of the information is maintained.

b. Indicate how each system provides timely problem identification to management and facilitates rapid initiation and control of corrective actions.

c. Address how change orders are managed and progressed for payment.

d. Discuss the various management information systems (e.g., material ordering and receipt reports, design status, production, testing status and QA status, etc.). Describe means to standardize such systems so as to provide WSF with consistent reports in a common format.

e. Identify previous major shipyard projects for which each system identified has been successfully utilized.

3. Production Capability

a. Provide a production department organization chart. Identify all key managers and supervisors and provide resumes for those identified.

b. Provide a narrative description of procedures utilized to schedule, plan, coordinate and progress production work. Describe in detail procedures used for integrating shop work, ship work and subcontractor work to ensure efficient schedule adherence with a minimum of overtime usage.

c. Provide a production schedule showing all major proposer and subcontractor evolutions. Be sure to include any milestones for modular construction if that method is to be used as well as propulsion equipment vendor's scheduled milestones. The production schedule must show all major system testing as well as vessel trials.

d. Provide a breakdown of existing production personnel in the following format and identify additional projected resources required for this project. If more than one work site is to be used, provide below information for each work site separately.

Labor Category	Number Currently Employed	Average Years with Shipyard	Average Years in Trade	Additional Required (Peak)
Boilermakers				
Electrical				
Electronic				
Machinist-Inside				
Machinist-Outside				
Painters				
Pipefitters				
Sheetmetal				
Shipfitters				
Shipwrights				
Welders				

e. If it is required to increase shipyard manning to support this Contract and any anticipated concurrent work, the proposer must provide its projected hiring plan.

f. Identify any known contracts or projected workload that may be competing with this Contract for the proposer's resources.

g. Provide examples of previously employed production strategies and outfitting integration including use of modular construction, zone outfitting, erection processes and painting integration.

h. If modular construction is to be used or if production takes place at more than one work site, describe how any subcontracted work will be coordinated between modules or work sites. Explain how this subcontracted work will be progressed.

i. Describe in detail how component and system testing will be accomplished within a module and how vessel systems will be accomplished subsequent to module integration.

j. Provide a detailed description of how final outfitting will be accomplished. Indicate what work (deck coverings, overhead installation, ducting insulation, furniture installation, cable pulling, etc.) will be accomplished as final outfitting.

k. If proposer intends to use modular construction, indicate how uniformity of outfitting efforts will be assured. Describe, for example, how cabling from equipment in one module will be run to equipment in another module crossing one or more module boundaries.

l. Describe plan for assuring commonality of standards for methods and procedures between various portions of the vessel or module both during construction and outfitting.

m. Describe in detail a plan for integrating the work to be performed by the propulsion system vendor, including testing and trials. If this vendor's work is required to take place at more than one work site, describe the plan for integrating his effort between work sites.

n. List all current union agreements that affect the proposer's labor force and the status and period of the agreements, including any anticipated changes during the period of the proposed Contract.

4. <u>Material Acquisition and Control Capability</u>

a. Provide a material department organization chart. Identify key material department personnel and provide resumes for all those identified.

b. Provide a breakdown of existing personnel assigned to the material department by trade, skill and experience, and identify additional resources required for this Contract. Utilize the following format:

Labor Category	Number Currently Employed	Average Years with Shipyard	Average Years in Trade	Additional Required (Peak)

c. Identify the procedures utilized to interface material procurement with design and production. Describe procurement systems and processes for purchasing material by work site.

d. Describe existing procedures for material receipt inspection, handling, storage and testing.

e. Describe the selection process used to identify material suppliers including qualification and selection of vendors.

f. If purchasing is to be done by more than one department or work site organization, describe the intended system to ensure standardization of all material and equipment within the vessel and throughout the vessels. For example, how will standardization of paint systems and paint system application be assured between different work sites?

g. Provide, for each construction site, a detailed description of how storage, transfer and control of Owner Furnished Equipment (OFE) will be accomplished. Address method and facilities to provide environmentally controlled storage where required for OFE.

5. <u>Quality Program Capability</u>

a. Provide a brief description of the shipyard's system to assure the quality of both the design and the construction of the vessel.

b. Provide a copy of the current shipyard quality program manual and a quality program department organization chart. Identify the department manager and all key personnel. Provide resumes of all personnel identified.

c. Provide in narrative form, a description of the proposer's procedures, training and implementation of the quality program. Address design, production, material, subcontractor quality control and issues such as in-process measurement, material receipt inspection and test and trial systems.

d. Provide existing documentation of the quality program as applied to current and past projects. Include examples of

design and production deficiency identification with specific corrective actions taken to prevent reoccurrence.

e. Provide a definition of what quality standards will be used (e.g., ISO standards, MIL standards, etc.). What program will be used to ensure adherence to these identified standards.

f. Provide a narrative description of procedures for the following items:

i. How quality inspection results are recorded and to whom they are reported.

ii. How deficiencies are analyzed.

iii. How trend analysis of deficiencies is performed.

iv. How training requirements are identified and implemented to capture quality assurance program lessons learned.

g. Identify procedures for establishing subcontractor quality program requirements in purchase orders and contracts.

h. Provide documentation showing that all required production and equipment certifications are current. If they are not, describe the recertification process that will be used to comply with the Contract requirements.

6. <u>Security and Safety</u>

a. Provide a detailed description of the proposer's existing safety orientation and training program.

b. Describe internal training, procedures and responsibilities for ensuring safe work practices at the work site(s).

c. Provide a copy of the proposer's fire protection plan. Include a description of the fire protection organization, equipment and procedures. Identify the degree and frequency of fire fighting equipment testing and certification and drilling of personnel. Identify what coordination has been established and agreements formalized with outside agencies (fire department, USCG, etc.).

d. Describe damage control plan in the event of flooding from any possible piping system failure or fire fighting efforts during construction.

e. Describe contingency plan in the event of an oil spill. Describe procedures and available equipment.

f. Address existing procedures for control of hazardous work such as hot work, gas free engineering, radiology, etc.

g. Describe the shipyard HAZMAT control and disposal responsibilities and procedures. Identify primary position within the proposer's organization responsible for HAZMAT training.

h. Describe the proposer's organization and procedures for insuring the safety of personnel and equipment, including production work in progress, in the event of natural disasters such as hurricanes, earthquakes, etc.

i. Describe the physical security procedures and actions taken by the proposer to provide proposer facility and material security both at the shipyard and at other sites.

7. <u>Regulatory Compliance</u>

a. Provide a detailed narrative describing procedures for compliance with regulatory requirements in the proposer portion of the design of the vessel.

b. Demonstrate the knowledge or ability to comply with, as a minimum, the following:

- Code of Federal Regulations - Title 46 (CFR-46) Subchapter H (which includes W);
- United States Coast Guard (USCG) regulations;
- American Bureau of Shipping (ABS) standards;
- U.S. Public Health requirements;
- Environmental Protection Agency (EPA) requirements; and
- Occupational Health and Safety Administration (OHSA) requirements.

c. Provide a list of all local, state and federal environmental agencies with jurisdiction over proposer activities and operations. List the environmental regulations that apply and include copies of permits or affidavits verifying compliance as an appendix of the proposal.

d. Provide copies of any regulatory agency or other state or federal agency citations or adverse reports for the last five years and show actions completed or in process to correct cited deficiencies or violations that preclude future such instances.

8. <u>Financial Systems</u>

Provide the information requested below. Where audited information is required below, it shall be presented in the form of certified reports prepared at the proposers sole expense by an independent accounting firm and signed by both an officer of the proposer corporation and a Certified Public Accountant who must be a senior executive of the independent accounting firm. The accounting firm shall have no actual or apparent conflict of interest and no other business or other consultant relationships with the proposer corporation or the officers of the proposer corporation.

a. Provide labor costs as defined in RFP Volume III, Phase III Contract Provisions, for use in pricing Change Orders during the Phase III Construction Contract. Note: WSF may conduct an independent audit of labor costs.

(i) List direct and indirect factors and amounts in dollars for each factor.

(ii) Provide audited hourly rate for production labor costs with a break down for direct and indirect costs. Rate must be the lowest charged for any other customers. Audit to be available for review by WSF during proposal evaluation.

(iii) Provide audited hourly rate for engineering labor costs with a break down for direct and indirect costs. Rate must be the lowest charged for any other customers. Audit to be available for review by WSF during proposal evaluation.

b. Discuss how cost and pricing data, as defined in RFP Volume III, Phase III Contract Provisions, will be developed and provided to WSF in estimating Change Orders for labor, material and subcontractors.

c. Discuss accounting procedures for:

- Segregating direct costs from indirect costs;
- Separating costs by specification item; and
- Separating cost by change order.

d. Timekeeping System

i. Timekeeping system ability to track employees' time spent on specific work activities, in particular for time and material work that may be authorized after award of the Phase III Construction Contract.

ii. System to track material and subcontractor costs on specific work activities.

iii. Tracing of time cards to the proper cost account.

iv. Charging direct and indirect labor to the appropriate cost objectives in the labor distribution system.

e. Financial Reports

i. Accounting system reports which show the results of charges to contracts.

ii. Reports which will be sufficient to supply the data required in the Phase III Construction Contract.

(END)